Public consultation

“Green Paper on a 2030 framework for climate and energy policies”
(Dr. Constanze Adolf, Jacqueline Cottrell, Petra Sieber, June 2013)
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Information on the consultation

Consultation document: Green Paper: A 2030 framework for climate and energy policies

Background (EU Commission text)

The EU has a clear framework to steer its energy and climate policies up to 2020 and is making good progress towards meeting its climate and energy targets for 2020. But providing clarity on a policy framework for 2030 is also needed, giving more certainty to investors, stimulate innovation and demand for low-carbon technologies and allow the EU to engage actively in the international negotiations for a new climate agreement.

The 2030 framework should build on the experience and lessons from the current framework. It should also take into account the longer term perspective set out by the Commission in the Roadmap for moving to a competitive low carbon economy in 2050, the Energy Roadmap 2050 and the Transport White Paper.
The Green Paper raises a set of questions e.g. relating to the main lessons from the 2020 framework; type, nature and level of climate and energy targets for 2030; coherence between different policy instruments; competitiveness and security of energy supply; and distribution of efforts between Member States.

Green Budget Europe’s answer – In short

Green Budget Europe (GBE) strongly supports three clear, concise, reliable and ambitious climate and energy targets for 2030 to reach a GHG reduction of between 80-95% by 2050, consistent with the internationally agreed target to limit atmospheric warming to below 2°C. The so-called 400 ppm threshold was already reached in 2013 which makes it more urgent than ever to start implementing an ambitious EU energy and climate policy now. GBE asks for:

- A 45% cut in GHG emissions by 2030 (as compared to 1990) if the 20% target will remain the same until 2020. This target should increase automatically to 55% if a 30% target will be agreed by 2020.
- A 45% share of renewables by 2030;
- A binding 35% target for energy efficiency, complemented by an objective for energy savings in terms of final energy use by 2030.

These three binding targets should be complemented by an automatic mechanism to increase the ambition in case of early achievement of an interim target. The targets are essential from three perspectives:

1. An early agreement before the new EU Commission take over in 2014 on the required efforts up until 2030 ensures stable and predictable framework conditions for low-carbon investment.
   - Postponing action towards a low-carbon economy aggravates the challenge related to CO₂ and other GHG emissions, thereby leading to higher costs for substitution and abatement in future periods. Thus, there is a strong rationale in favour of an ambitious 2030 framework for climate and energy policy not only from an environmental, but also from a social and economic point of view.
   - A business as usual scenario locks in long-term investment a high-carbon, fossil-fuel based economy and will not bring about a green recovery or create green jobs. To opt for unambitious targets would be disastrous in a moment where the EU is facing the highest unemployment rates ever, particularly amongst 18-25 year olds.
   - “Delaying action is a false economy: for every $1 of investment avoided in the power sector before 2020 an additional $4.3 would need to be spent after 2020 to compensate for the increased emissions.” IEA, 2011

2. Ambitious targets are both feasible and absolutely necessary. We do not lack solutions to tackle the sustainability challenge. But to meet these targets, it is essential to create a level playing field – which means creating a fiscal and regulatory framework within which the polluter pays principle is implemented across all sectors
   - The Roadmap for moving to a competitive low carbon economy suggests that by 2050, the EU should cut its GHG emissions to 80-95% below 1990 levels. This is consistent with the in-

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1 World Energy Outlook 2011, 9 November 2011
ternationally agreed 2°C limit of atmospheric warming. In order to reach this ambitious target, we need to ensure that Member States move onto a realistic GHG emissions reduction trajectory to 2050 and already make their fair share of mitigation efforts today.

3. Three binding targets coupled with intelligent climate and energy policy will boost the European economy and strengthen the EU’s global competitiveness and its position as a pioneer of ambitious climate policy in international climate negotiations. This would foster credible global leadership on sustainability and allow the EU to demand further commitments from other important players.

- “I am getting regular phone calls from Chinese electricity companies watching the backloading crisis in Europe. This is not invisible. We are saying, ‘have confidence in carbon markets,’ but we aren't going to do anything about confidence in our own climate market.” Mark Lewis, climate market analyst Deutsche Bank.²

1. General: lessons learned from the 2020 framework

For GBE, creating a rational business case in favour of sustainable production and consumption patterns is an opportunity that climate and energy policies cannot afford to miss. However, as we can see from the collapse of the emissions allowance price in 2013, the EU needs robust policy measures and decisive action to guarantee that we have sufficient influence on relative market prices. Only with ambitious targets can we achieve emission reductions to put us on a trajectory to 80-95% reductions by 2050, radically improve energy efficiency, and boost investment in renewable energy technology.

Abstract targets at EU level that are neither implemented in national legally binding strategies nor translated into concrete measures are not likely to deliver the desired progress, however – as demonstrated by the energy savings target, which will not be met with the current policies. Furthermore, the fact that efficiency gains risk being offset by the rebound effect may justify additional steps aiming to reduce consumption, foster sustainable production and put transparent and realistic prices on environmentally harmful behaviour.

The GHG emissions reduction targets set by the EU for 2020 proved to be not ambitious enough, due to reduced emissions as a result of the impact of the recession on the EU economy. However, because no automatic mechanisms are in place to increase the target, an increase to 30%, which impact assessments have shown to be beneficial for the EU economy in the long term³, is subject to ongoing political wrangling and in spite of strong support from some governments, is unlikely to be implemented.

For this reason, a method of increasing the targets automatically if achievement of an interim target indicates that they will be easy to achieve should be integrated within all future targets – as proposed above.

The example of the German energy transition also shows the need for better coordination of national support schemes in order to avoid efficiency losses. In this context, GBE considers Germany’s renewable energy policy definitely as a success story but also acknowledges a lack of comprehensive planning and coordination.

When defining targets and designing measures for their realisation, trade-offs between different instruments should be considered, as well as macro-economic impacts. Otherwise, there is a real

risk of energy efficiency improvements being undermined by the rebound effect and that ineffective climate policy tools will be created which are difficult to reform, such as the ETS in its current state.

2. Targets: type, nature and level of climate and energy targets for 2030

GBE strongly supports three legally binding targets which will be increased automatically if the interim targets are met. The following corresponds to the cost-effective pathway for achieving the 2050 targets:

1. A 45% cut in GHG emissions by 2030, if the 20% target remains the same until 2020. This target should increase automatically to 55% if a 30% target for 2020 is agreed. Similarly, if GHG emissions reductions of 40% are achieved by 2025, then the 2030 target should be automatically increased to 55%;

2. 45% of all energy use to be from renewable sources by 2030;

3. A **binding** 35% target for energy efficiency, complemented by an objective for energy savings in terms of final energy use by 2030.

In addition:
- 5-year terms interim goals should be set;
- If these interim targets are overreached, higher targets for 2030 should automatically come into force;
- The state of play of achieving the targets should be assessed every 2 years;
- Severe sanctions should be imposed on Member States if they do not meet clearly defined and binding emissions reduction targets, to encourage MS to take ownership of the EU climate and energy policies.

Concerning the level to which the 2030 targets should apply, GBE proposes a multi-level strategy:

- EU-wide objectives to provide for cost-efficient progress on climate and energy policy, whilst leaving room for manoeuvre to Member States and businesses;
- **Ambitious, coherent and clear national targets with clear timelines** set in accordance with country specific circumstances to ensure that all Member States move ahead and engage in sustainable development and greening their economy;
- The same principle accounts for different business sectors, where ambitious benchmarks and minimum standards based on best available techniques (BAT) and revised regularly in accordance with new technological developments are required to ensure emissions reductions within specific sectors (cf. Japan’s “Top Runner” programme for energy performance requirements). This strategy is especially important with regard to sectors characterised by relatively inelastic demand and high innovation costs;
- A binding target for renewable energy in the transport sector should also be introduced to ensure that sufficient progress is made towards decarbonising the transport sector by 2050.

Predetermined minima, both for individual business sectors and for Member States can reduce the risk that certain nations or business sectors “buy their way out” of their reduction commitments. As
long as minimum reductions are combined with a higher target at EU level, this strategy still allows for significant cost-savings by reducing the vast share of emissions at lowest cost.

**Addressing trade-offs, reducing market distortions**

Current discussions about different strategies and tools to reduce greenhouse gas emissions reveal that there are trade-offs associated with the achievement of GHG emissions reductions. However, these trade-offs are sometimes exaggerated and have led to costly, unsustainable technologies being considered as “transition technologies”, such as nuclear power, carbon capture and storage (CCS) and shale gas.

A simple examination of the real cost of power generation demonstrates that renewable energies are already competitive with fossil fuels once the external costs of other energy sources are taken into account. Furthermore, there is no alternative for a low carbon economy than a functioning internal energy market based on renewables and an intelligent grid.

Transparent, democratic and unbiased information and education about the costs, risks and challenges but also opportunities of different energy and climate policy options is essential. We call on decision makers to stop disseminating the false claim that renewables are the reason behind rising energy costs, and we ask both decision makers and stakeholders to withdraw their claims that energy prices will be impossible to reduce in the coming years.

An ambitious EU climate and energy policy has the potential to free-up economic resources currently squandered on fossil fuel subsidies and to generate revenues that can help to reach the 2050 targets in a cost-efficient way. Therefore, we call on the EU Commission and the EU institutions in general to take over political leadership and fully implement the polluter pays principle and ensure that the life-cycle costs of all products and services are made transparent, making full use of subsidy reform and the implementation of Market-Based Instruments for environmental policy.

An ambitious EU energy and climate policy needs to provide the right signals NOW and stop technologies that are associated with environmental and economic damage, and health and social costs in the future. Market-Based Instruments are a cost-efficient means of eliminating or reducing structural market distortions and of creating appropriate signals within the market by internalising externalities. At the same time, they can improve the efficiency of existing measures and thus – if properly implemented - can contribute to real structural adjustments of economies. THIS greening of the economy is the real alternative to nuclear power, shale gas, CCS, etc.

### 3. Instruments for implementation

1. **Environmentally related taxation**

GBE is in favour of EU-wide harmonised taxation of energy products and an early and ambitious revision of the Energy Tax Directive based on:

- The CO₂ and energy content of fuels;
- Technical neutrality in relation to carbon and energy content (i.e. tax rates which create a price signal directly related to carbon emissions and energy content);
- Automatic adjustment of the energy tax minimum in line with inflation;

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• Higher minimum rates;
• Deletion of the tax ban on fuels for aviation, shipping and the production of electricity;
• Allowing Member States to tax CO2 emissions from biomass-based fuels;
• Making the minimum CO\textsubscript{2} tax fully mandatory for all non-ETS use of fossil heating fuels, with rates phased-in over different timescales in different countries;
• Introducing a mandatory minimum tax rate on nuclear fuels;
• Investigating a switch from taxing some transport fuels based on fuel USED instead of fuel TANKED.

2. Reform of Environmentally Harmful Subsidies

Creating a business case for sustainable solutions such as renewable energy is closely linked to the full application of the polluter and user pays principles. Phasing out Environmentally Harmful Subsidies will play a key role for progress towards climate and energy targets and should be more strongly promoted by the EU i.a. within the European Semester process. Not reforming environmentally harmful subsidies, as requested in successive Annual Growth Surveys, is a waste of valuable resources which could be used e.g. to target high rates of youth unemployment.

3. Reform of the ETS

Structural reform measures to tackle the supply-demand imbalance of the EU ETS are urgently required. Once considered as Europe’s flagship climate policy, emissions trading has become a farce, taking the current price per allowance into account and its actual influence on businesses investment decisions. The near zero price signal being seen today means the EU has returned to “business as usual” energy scenario, which is even resulting in a resurgence of coal based power generation projects. This will just put upward pressure on EU emissions in the 2020s and beyond. The demand for, abundance of and low cost of extraction of fossil fuels may well be unassailable this century, so atmospheric CO\textsubscript{2} will continue to rise.

Structural reform, the permanent retirement of allowances, and the immediate increase of the GHG emissions reduction target to 30% would both strengthen the carbon price signal and restore investment security. If effective reform is not implemented, the expansion of the EU ETS will also be in jeopardy. In Australia, where emissions trading is due to be linked with the EU ETS on 1 July 2015, doubts are regularly expressed in the press about the efficacy of the EU ETS and the wisdom of linking to it. Indeed, the Australian government has revised its own price projections downwards from 2015.

Only a strong cap within the EU ETS will lead to long-term strategic and structural changes within the EU economy. Low emissions during an economic recession are not a reflection of the “greening” of the EU economy and should not be regarded as such. If this issue is not tackled, economic recovery risks leading the EU onto a high emissions trajectory to 2050, as inefficient technologies and fossil fuel energies are and remain “locked in”.

4. Awareness raising

Raising public awareness of cost-reduction potentials by means of transparent pricing and smart metering will become crucial to achieve further savings in consumption.
5. Border Carbon Adjustments

Adding the cost of carbon emissions to the prices of traded goods at the EU border, based on a measure of the greenhouse gases embodied in the goods themselves – Border Carbon Adjustments (BCAs) – could prove to be a powerful instrument. Without a global agreement on GHG emissions reductions, which requires other economies to introduce comparable measures, the EU’s 2050 climate targets of a 80-95% reduction of CO2 in comparison to 1990 levels will be hard to implement. BCAs can export pressure to reduce GHG emissions beyond the EU by putting a price on embodied carbon and may even be one cause of the implementation of carbon pricing measures beyond EU borders.\(^5\)

Modelling undertaken for the “Carbon and Energy Tax Reform in Europe” (CETriE, Chapter 8)\(^6\) project investigated the economic and environmental effects of import and export border carbon adjustments applied to steel, aluminium and cement, i.e. those sectors where the practical challenges associated with introducing the adjustments are smallest. The modelling indicates that BCAs might cut output losses from carbon leakage in affected sectors by up to two thirds, while also raising revenue. The modelling results also showed that BCAs have the potential to deliver better protection against leakage than free ETS allocations. They could contribute more to fiscal consolidation than a shift to full auctioning on its own, and are a more attractive way of raising revenue than an increase in direct taxes.

However, BCAs in their currently-discussed forms are not welcomed by some of Europe’s major trading partners. Their concerns may be addressed through better design.

The CETriE report proposes a new smart form of BCAs. Smart BCAs are calibrated to a trading partner’s income level and take into account capacity to mitigate emissions. They also benchmark against other countries, comparing their carbon prices. The report explains some relatively simple mechanisms that could achieve these benefits. These ideas also demonstrate that there is no collision with WTO rules.

4. Competitiveness and distributional aspects

Continuing – and indeed increasing – consumption of coal (by far the dirtiest fossil fuel) within the EU is far more costly to our society and the economy than any perceived “carbon leakage” effects\(^7\). In addition, there is no empirical evidence to support the concern that some companies leave the EU because of a higher environmental costs. For manufacturing sectors, climate policy is far less relevant in investment decisions than other factors, such as differences in tax structure, labour costs or local market conditions, legal and quality standards or other voluntary agreements. Countries with higher environmental standards do not have lower economic performance as environmental costs represent only a small proportion of total production costs.

Economic instruments, especially environmental taxes, involve lower economic costs compared to standards and legislation. Properly targeted economic instruments improve competitiveness in the

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\(^5\) For example, in China, discussions about Border Carbon Adjustments in the EU context prompted the Chinese government to seriously consider implementing its own carbon pricing scheme.

\(^6\) Cooperation between Green Budget Europe and the European Climate Foundation in association with Vivid Economics: http://www.foes.de/internationales/green-budget-europe/gbe-projekte/cetrie/?lang=en

\(^7\) OECD study “Taxation, Innovation and the Environment”:

\(^8\) A recent Health and Environment Alliance report, “The Unpaid Health Bill - How coal power plants make us sick”, points out the massive health costs associated with coal pollution in Europe (http://www.env-health.org/IMG/pdf/heal_report_the_unpaid_health_bill_-_how_coal_power_plants_make_us_sick_finalpdf.pdf)
long run as they can be designed to encourage efficient use of resources (economic instruments are used as a tool to correct misallocation of resources, and production and consumption behaviour). To give an example of a thriving manufacturing company, last year in Poland, Press-Glas, a leading European company in the building-glass processing sector with an annual turnover of €130 million, opened its fifth factory, which is also the largest glass processing plant in Europe.

Border Carbon Adjustment (see above) may also provide a solution to tackle competitiveness concerns and carbon leakage whilst creating spill-over effects on developing countries in terms of low-carbon production. Regressive effects on consumers\(^9\) can be addressed in a very targeted manner by adjusting labour taxes or giving credits.

Furthermore, potential disadvantages might even be offset by efficiency gains, technological innovation and job creation in green sectors. Low-carbon technologies tend to be more labour intensive than conventional sectors, and also increase energy security. Achieving a higher GHG reduction target reduces imports of oil and gas and discourages carbon investment in fossil energy sources. Instead, funds would be geared to promoting low-carbon technologies and green jobs in the EU.

Facing the effects of the current crisis, European governments are struggling to reduce major fiscal deficits without decreasing economic activity. Research\(^10\) shows that carbon fiscal measures have high potential for raising revenues at less detrimental macro-economic impact on employment and GDP than other tax options or austerity measures. Therefore, carbon taxation would be a cost-effective option to simultaneously yield environmental, economic, social and fiscal dividends.

When it comes to competitiveness issues, we also need to apply a long-term oriented perspective. This implies that economic success cannot solely be judged based on energy prices in the short run. As natural resources including fossil energy carriers are dwindling, it remains only a question of time until scarcity will translate into price signals on the energy market. Under these circumstances, renewable energy sources and efficient technologies will be key factors for economic resilience.

Hence, assessing competitiveness based on short-term (energy) prices is clearly insufficient. In the long run, Europe’s economic position and success will be closely linked to security of supply which in turn requires a stable and independent internal energy market.

What we need in the short run, are predictable and stable framework conditions for investment including a strong carbon price, pre announced and reliable support schemes at national and EU level as well as sufficient storage and grid capacity for electricity.

**Conclusions: Stop asking but start acting - NOW!**

Given the clear evidence for three binding climate and energy targets for 2030:

- A GHG reduction of 45% by 2030, rising automatically to 55% should the 2020 target be increased to 30% or if 45% is achieved by 2025;
- A renewable energy target of 45%;
- A binding 35% energy efficiency target, complemented by an objective for net energy savings in terms of final energy use.


The EU needs:

- A credible, long-term low-carbon investment-friendly environment for 2030 with consistent, ambitious interim targets;
- An honest dialogue about unavoidable increases in energy prices: Significant investments in infrastructure and the grid are needed to modernise the energy system, with or without de-carbonisation, which will impact the energy prices in the period up to 2030. EU Citizens have the right to transparent pricing policies, and to understand that higher energy prices are not due to a higher share of renewables;
- Socially just compensation schemes. The CETRIE project (see above) showed that only 5-10% of the additional revenues from Environmental Fiscal Reforms are needed to compensate the poorest quintile of society.

If it wants to remain competitive, the EU must move towards transparent prices, intelligent and market-based regulation, and an eco-social economy.

**Environmental fiscal reforms (EFR) are a crucial policy to**

- help develop new industries that will provide sustainable jobs;
- create a clear, predictable environment for eco-innovative investments;
- provide competitive advantages for the industry;
- contribute to restoring fiscal stability after the recession;
- put the EU on a low-carbon trajectory;
- make the market work for environmental protection.

EFR can make a positive and beneficial contribution to the structural adjustment that will be necessary to carry the EU out of the current economic and fiscal crisis and towards a decarbonised economy by 2050. To achieve this, the EU must set ambitious and obligatory targets for 2030 and harness the power of economic instruments for environmental policy to stimulate economic recovery, create green jobs, and put Europe onto a sustainable path to prosperity to 2030 and beyond.